



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,271	02/06/2006	Junbiao Zhang	PU030241	9732
24498	7590	10/14/2009		
Robert D. Shedd, Patent Operations				
THOMSON Licensing LLC				
P.O. Box 5312				
Princeton, NJ 08543-5312				
EXAMINER				
VU, PHU ANH TRAN				
ART UNIT		PAPER NUMBER		
2437				
MAIL DATE		DELIVERY MODE		
10/14/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/567,271

**Applicant(s)**

ZHANG ET AL.

**Examiner**

PHY ANH VU

**Art Unit**

2437

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

The instant application having Application No. 10/567,271 filed on 2/06/2006 is presented for examination by the examiner.

***Response to Arguments***

Applicant's arguments filed 06/12/2009 have been fully considered but they are not persuasive.

On page 15, Applicant states, "For example, claim 1 is directed a content consumer, and recites "A device, located at a remote site .... comprising a Processor in communication with a memory ...- The rejection relies upon =Col, 11, lines 42 - 47, CPU" of Taki for a disclosure of this claim element. However, this portion of Taki is describing a "content requester" (CR) device, which does not perform the subsequent recited method steps of claim 1. Reliance on this portion of the reference to this element is therefore submitted to be unrelated and inappropriate."

In response, Examiner respectfully disagrees at least for the following reason: it is the processor in the content requester using its own memory that executes codes at least for initiating a content transfer. Due to the execution of such codes, the execution of the codes for the cited steps is performed or made possible. In other words, it is the processor of the content requester that executes codes for executing other codes that perform those steps (codes invoking other codes). Therefore, it is appropriate to interpret that that processor executes codes for those steps as well (at least in an indirect manner).

On page 15, Applicant argues Taki does not disclose any "access code." In response, Examiner respectfully disagrees and submits that the "content-signing key" corresponds to the claimed "access code" since this code is used for accessing the requested contents from the distribution server.

On page 16, Applicant argues that, there is nothing in either Hori or Taki which provides any "teaching, suggestion or motivation" to a person of ordinary skill to modify Taki so as to include: "receiving a first information item comprising an access code and a content key scrambled using a key known by said remote site."

In response, Examiner respectfully disagrees. First of all, Taki clearly discloses the claimed "access code" as described above. Hori, at least in paragraphs [0068], [0085], and [0107] as described in the Office Action, discloses a content key being encrypted and used for encrypting and decrypting distributed content data. It would have been obvious to one of ordinary skill at the time the invention was made to modify the teachings of Hori into the system of Taki because it would provide for ensuring only authorized user will be able to view the content data and at the same time protect the copyright of the holder through the use of access code as described in the Office Action.

Applicant's arguments on pages 16-19 are moot in view of the discussion of Taki and Hori above.

#### **Examiner Notes**

Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations

within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-6, 10-13, 16-20, 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO (W/O 03/061189, which has an English version as US 7,392,393 B2, Examiner will use this patent as a translation of the WIPO, hereinafter Taki), and further in view of Hori et al (US 2002/0131594 A1, hereinafter Hori).**

Regarding claim 1, Taki discloses a device, located at a remote site in communication with a network having at least one server (*e.g: Fig. 1, wherein the home PC & mobile information terminal communicate with content distribution server*), comprising:

a processor in communication with a memory, said processor operable to execute code for (e.g: *Col 11, lines 42-47, CPU*):

receiving a first information item comprising an access code scrambled using a key known by said remote site (e.g: *Col 3, lines 14-31, [E(K\_SEC\_MBL, Ksig)] wherein the second information processing apparatus receives the encrypted content-signing key*), said access code generated by said at least one server in response to a request for a second information item by a content requester (e.g: *column 3, lines 24-26, Col 19, lines 31-38, 58-64, wherein content distribution server generates content-signing key in response to the request by the mobile information terminal to download content to home PC*);

descrambling said first information item using a corresponding decrypting key (e.g: *Col 3, lines 25-31; Col 19, lines 3-6, wherein the second processing apparatus decrypts the encrypted key data using the public key of the first information processing apparatus*);

transmitting said access code to a server hosting said second information item (e.g: *Col 19, lines 65-67; Col 20, lines 1-15, wherein mobile information terminal sends the encrypted content-signing key which corresponds to access code, to content distribution server*)

Although Taki discloses receiving said second information item after said server hosting the second information item verifies said access code, but Taki does not disclose said second information item scrambled using said content key.

Taki also does not disclose first information comprising a content key.

However, Hori discloses content key (e.g: [0068][0107], *encrypted license key*) and receiving said second information scrambled using said content key (e.g: [0068][0085], *content data is encrypted with content key*).

It would have been obvious to one of ordinary skill at the time the invention was made to modify the teachings of Hori into the system of Taki because it would provide for ensuring only authorized user will be able to view the content data and at the same time protect the copyright of the holder through the use of access code ([0023-0024]).

Regarding claim 2, Taki in view of Hori discloses the device as recited in claim 1, wherein said processor is further operable to execute for:

Hori discloses descrambling said second information item using said content key ([0068][0085], *wherein license key is used for decrypting the encrypted content data*).

Regarding claim 3, Taki in view of Hori discloses the device as recited in claim 1, wherein said first information item includes a use-limit indication.

Hori discloses a use-limit indication (e.g:[0073][0087][0089], *wherein the number of reproduction times is restricted.*)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Hori into the system of Taki because it would provide for preventing unauthorized duplication and ensuring the copyright protection of the copyright holder ([0023]-[0024] [0073])

Regarding claim 4, Taki in view of Hori discloses the device as recited in claim 1, wherein said processor is further operable to execute code for:

Taki discloses transmitting said access code in unencrypted form, said transmitting being selected from the group consisting of: automatically, at a predetermined time, at a predetermined time offset, responsive to a manual input (e.g: *Fig 3, step 4, wherein the unencrypted content-signing key (corresponds to access code) is sent to the mobile information terminal only after verification procedure is completed, which implies that unencrypted access code is sent at a predetermined time.*)

Regarding claim 5, Taki in view of Hori discloses the device as recited in claim 1, wherein said content key is selected from the group consisting of: a public key, a shared key.

Hori discloses said content key is selected from the group consisting of: a public key, a shared key. ([0085], *Kc is used to both encrypt and decrypt content data, thus it is a shared key*)

Regarding claim 6, Taki in view of disclose the device as recited in claim 3, wherein said use-limit indication is selected from the group consisting of: number of uses, time-period.



Hori discloses use-limit indication is selected from the group consisting of: number uses, time-period ([0089], *wherein time period allowed for reproduction is restricted*)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Hori into the system of Taki because it would provide for preventing unauthorized duplication and ensuring the copyright protection of the copyright holder ([0023]-[0024] [0073]).

Regarding claim 10, Taki in view of Hori discloses a method, operable at a receiving device located at a remote site in communication with a network having at last one server (Taki e.g: *Fig. 1, elements 120 &150, home PC and content distribution server*), for descrambling secure content received over said network (Hori e.g: [0070], *wherein encrypted content data received is being decrypted*), said method comprising the steps of:

Taki discloses receiving a first information item comprising an access code scrambled using a key known by said remote site (e.g: *Col 3, lines 14-31, [E(K\_SEC\_MBL, Ksig)] wherein the second information processing apparatus receives the encrypted content-signing key*), said access code generated by said at least one server in response to a request for a second information item by a content requester (e.g: *column 3, lines 24-26; Col 19, lines 31-38, 58-64, wherein content distribution server generates content-signing key in response to the request by the mobile information terminal to download content to home PC*);

Descrambling said first information item using a corresponding decrypting key (e.g: Col 3, lines 25-31; Col 19, lines 3-6, wherein the second processing apparatus decrypts the encrypted key data using the public key of the first information processing apparatus);

Transmitting said access code to a server hosting said second information item (e.g: Col 19, lines 65-67; Col 20, lines 1-15, wherein mobile information terminal sends the encrypted content-signing key which corresponds to access code, to content distribution server) ;

Although Taki discloses receiving said second information item after said server hosting the second information item verifies said access code, but Taki does not disclose said second information item scrambled using said content key.

Taki also does not disclose first information comprising a content key.

However, Hori discloses content key (e.g: [0068][0107], encrypted license key) and receiving said second information scrambled using said content key (e.g: [0068][0085], content data is encrypted with content key).

It would have been obvious to one of ordinary skill at the time the invention was made to modify the teachings of Hori into the system of Taki because it would provide for ensuring only authorized user will be able to view the content data and at the same time protect the copyright of the holder through the use of access code ([0023-0024]).

Regarding claim 11, Taki in view of Hori discloses the method as recited in claim 10, wherein said first information item includes a use-limit indication.

Hori discloses a use-limit indication ([0087][0089], wherein the number of reproduction times is restricted.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Hori into the system of Taki because it would provide for preventing unauthorized duplication and ensuring the copyright protection of the copyright holder ([0023]-[0024] [0073]).

Regarding claim 12, Taki in view of Hori discloses the device as recited in claim 1, wherein said content key is selected from the group consisting of: a public key, a shared key.

Hori discloses said content key is selected from the group consisting of: a public key, a shared key. ([0085], Kc is used to both encrypt and decrypt content data, thus it is a shared key)

Regarding claim 13, Taki in view of Hori disclose the method as recited in claim 10, wherein said use-limit indication is selected from the group consisting of: number of uses, time-period.

Hori discloses use-limit indication is selected from the group consisting of: number uses, time-period ([0089], wherein time period allowed for reproduction is restricted)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Hori into the system of Taki because it

would provide for preventing unauthorized duplication and ensuring the copyright protection of the copyright holder ([0023]-[0024][0073]).

Regarding claim 16, Taki in view of Hori discloses a method for transferring secure content over a network comprising the steps of:

Taki discloses receiving a request for content at a first server over a first network from a file requesting device, said request including an encryption key known to a designated remote site (e.g: Col 12, lines 23-39, wherein the mobile information terminal sends a request to the content distribution server request for downloading a content to the home PC. The request includes the public key of the home PC);

generating a first information containing an access code at said first server in response to said request for content by said file requesting device (e.g: Col 2, lines 49-64; Col 12, lines 59-63, wherein content-signing key (corresponds to access code) is generated in response for request content)

transferring said first information item to said designated remote site having a file receiving device, wherein said access code and said content key are scrambled using said encryption key (e.g: Col 13, lines 14-18, wherein the encrypted key data (corresponds to access code and content key) is scrambled and sent to the home PC) ;

transferring secure content over a second network after verification of said access code (e.g: Col 14, lines 27-36, wherein, content is digitally signed by server and sends to home PC. Communication between server and home PC constitute second network).

Hori discloses generating first information containing a content key at said server ([0068], wherein license key is distributed from the distribution server).

receiving said access code from said designated remote site having said file receiving device ([0229-0230], wherein the authentication data which corresponds to access code is received from the PC which is a designated remote site).

wherein said secure content is encrypted using said content key ([0068][0085], content data is encrypted with license key).

It would have been obvious to one of ordinary skill at the time the invention was made to modify the teachings of Hori into the system of Taki because it would provide for ensuring only authorized user will be able to view the content data and at the same time protect the copyright of the holder through the use of access code ([0023-0024]).

Regarding claim 17, Taki in view of Hori discloses the method as recited as claim 16, wherein said first network and said second network are the same network (Taki Fig. 1, wherein a network is defined as 2 or more devices communicate with one another, thus communications between mobile information terminal, home PC and content distribution server can be grouped together as a network. So, communications either between home PC and content distribution server or mobile information terminal and content distribution server are all in the same network).

Regarding claim 18, Taki in view of Hori discloses the method as recited in claim 16, wherein said file requesting device is selected from the group consisting of: personal digital assistant, cellular telephone, notebook computer and personal computer. *(Taki Fig. 1 element 130; Col. 8, lines 51-63, wherein mobile information terminal corresponds to cellular phone)*

Regarding claim 19, Taki in view of Hori discloses the method as recited in claim 16, wherein said file receiving device is selected from the group consisting of: personal digital assistant, cellular telephone, notebook computer and personal computer *(Taki Fig. 1, element 120; Col 8, lines 51-63, home PC which corresponds to personal computer)*.

Regarding claim 20, Taki in view of Hori discloses the method as recited in claim 16, wherein said first network is a wireless network. *(Taki Fig. 1, elements 130 & 150, wherein the mobile information terminal is in communication with the content distribution server via wireless connection, thus implies that the network is wireless).*

Regarding claim 23, Taki in view of Hori discloses the method as recited in claim 22, further comprising the steps of:

Taki discloses transferring over a second network said secure content after verification of said access code *(e.g. Col 12, lines 59-67; Col 14, lines 31-35, wherein secure content is sent from server to the home PC after server verifies the access code.*

*This communication is taking place over the second network, which is the network between the server and the home PC)*

Hori discloses wherein said secure content is scrambled using said content key ([0068][0085], *content data is encrypted with license key*).

It would have been obvious to one of ordinary skill at the time the invention was made to modify the teachings of Hori into the system of Taki because it would provide for higher security level by ensuring only authorized user will be able to view the content data.

Regarding claim 24, Taki in view of Hori discloses the method as recited in claim 16,

Taki discloses the step of transferring said access code is over said first network (e.g: *Fig. 3, step 6, content-signing key sent from mobile information terminal to content distribution server*)

Hori discloses the step of transferring said content key is over said first network ([0068], *wherein license key is transferred from distribution server to distribution carrier*)

Regarding claim 25, Taki discloses the method as recited in claim 16,

Taki discloses the step of transferring said access code is over said second network (e.g: *Fig. 3, step 8, wherein content-signing key is sent from content distribution server to home PC*)

Hori discloses the step of transferring said content key is over said second network ([0085], wherein license key is transferred from distribution server to user of cellular phone)

Regarding claim 26, Taki discloses the method as recited in claim 16, wherein said second network is a high-speed network (Fig. 1, the internet, which is a high speed network, wherein home PC communicates with content distribution server)

Regarding claim 27, Taki discloses the method as recited in claim 26, wherein said second network is a content delivery network (Fig. 1, elements 120 & 150; Col 2, lines 42-48; Col 8, lines 51-56, wherein the content distribution server delivers content to the home PC, therefore the network used in this communication is a delivery network).

**Claims 7-9, 14- 15, 21, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taki in view of Hori and further in view of WIPO (WO 02/32026 A1, hereinafter Henrick).**

Regarding claim 7, Taki in view of Hori does not disclose the device as recited in claim 7, wherein said first information item further includes a content location.



However, Henrick discloses content location (*e.g: Page 8, lines 4-5, wherein the location of the content is transmitted to the PC*)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Henrick into the system of Taki in view of Hori because it would provide for the user to quickly know the destination of the content.

Regarding claim 8, Taki in view of Hori does not disclose the device as recited in claim 7, wherein said processor is further operable to execute code for transmitting said content location.

However, Henrick discloses transmitting content location (*e.g: Page 8, lines 4-5, wherein the location of the content is transmitted to the PC, therefore, it's implied that processor is operable to execute code for transmitting content location*)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Henrick into the system of Taki in view of Hori because it would provide for the user to quickly know the destination of the content.

Regarding claim 9, Taki in view of Hori does not disclose the device as recited in claim 7, wherein said content location is known.

However, Henrick discloses transmitting content location to PC (*e.g: Page 8, lines 4-5, wherein the location of the content is sent to the PC, which implies that the location of content is already known*)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Henrick into the system of Taki in view of Hori because it would provide for the user to quickly know the destination of the content.

Regarding claim 14, Taki in view of Hori does not disclose the method as recited in claim 10, wherein said first information item further includes a content location.

However, Henrick discloses content location (*e.g.: Page 8, lines 4-5, wherein the location of the content is transmitted to the PC*)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Henrick into the system of Taki in view of Hori because it would provide for the user to quickly know the destination of the content.

Regarding claim 15, Taki in view of Hori does not disclose the method as recited in claim 14, wherein said content location is known.

However, Henrick discloses transmitting content location to PC (*e.g.: Page 8, lines 4-5, wherein the location of the content is sent to the PC, which implies that the location of content is already known*)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Henrick into the system of Taki in view of Hori because it would provide for the user to quickly know the destination of the content.

Regarding claim 21, Taki in view of Hori does not disclose the method as recited in claim 16, wherein said first information includes a location of said content.

However, Henrick discloses content location (*e.g: Page 8, lines 4-5, wherein the location of the content is transmitted to the PC*)

Regarding claim 28, Taki in view of Hori does not disclose the method as recited in claim 16, further comprising the step of:

Transferring a location of said content to said designated remote site.

However, Henrick discloses transferring a location of said content to said designated remote site (*Page 8, lines 4-6, wherein Web server transmits the name and location of the requested song to PC*)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Henrick into the system of Taki in view of Hori because it would provide for the user to quickly know the destination of the content.

**Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taki in view of Hori and further in view of Kuriya et al (US 2001/0056404 A1, hereinafter Kuriya).**

Regarding claim 22, Taki in view of Hori does not disclose the method as recited in claim 16, further comprising the step of transmitting said content to at least one other server in communication with said first server.

However, Kuriya discloses the step of transmitting said content to at least one other server in communication with said server (*Fig. 10, elements S1303 and S1205, wherein content is transmitted from shop server to manager server*)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Kuriya into the system of Taki in view of Hori because it would provide for the most effective way of managing content distribution, by cross checking with each other to make sure information received is correct before a request is processed (*[[0213-0215]]*).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHY ANH VU whose telephone number is (571)270-7317. The examiner can normally be reached on Mon-Thr 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHY ANH VU/

Examiner, Art Unit 2437

/Emmanuel L. Moise/

Supervisory Patent Examiner, Art Unit 2437